

WHAT IS CLAIMED IS:

1. A display device comprising at least one substrate provided with a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,

wherein at least a part of the antenna is formed on the substrate and is formed of a conductor formed in the same layer as a conductor that constitutes the display unit or conductors that constitute the display-unit-driving wiring lines.

2. A display device comprising at least one substrate provided with a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,

wherein at least a part of the antenna is formed on the substrate and is formed of a conductor made of the same material as a conductor that constitutes the display unit or conductors that constitute the display-unit-driving wiring lines.

3. A display device comprising at least one substrate provided with a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,

wherein at least a part of the antenna is formed on the substrate and is formed of a conductor formed by the same process as a conductor that constitutes the display unit or conductors that constitute the display-unit-driving wiring lines.

4. The display device according to Claim 1, wherein the radio communication device has a function of storing information concerning the corresponding display device.

5. The display device according to Claim 1, wherein the radio communication device has at least one of a function of writing information in a radio communication device other than the corresponding display device and a function of reading information from the radio communication device other than the corresponding display device.

6. The display device according to Claim 1, wherein the radio communication device has a function of storing at least one of information written in a radio communication device other than the corresponding display device and information of the radio communication device other than the corresponding display device.

7. The display device according to Claim 1, wherein the communication integrated-circuit unit is mounted on the substrate.

8. The display device according to Claim 7, wherein the communication integrated-circuit unit and the antenna are electrically connected to each other through the

conductor formed in the same layer as the conductor that constitutes the display unit or the conductors that constitute the display-unit-driving wiring lines.

9. The display device according to Claim 1, wherein an external substrate for driving the display unit is electrically connected to the substrate and a conductor provided on the external substrate is electrically connected to the antenna formed on the substrate so that the conductor on the external substrate and the antenna on the substrate constitute an entire antenna, and

wherein the communication integrated-circuit unit is mounted on the external substrate.

10. The display device according to Claim 9, wherein the external substrate is constituted of a plurality of external substrates, and the communication integrated-circuit unit is mounted on one of the plurality of external substrates.

11. The display device according to Claim 1, wherein the communication integrated-circuit unit is constituted of a plurality of semiconductor elements formed on the substrate.

12. The display device according to Claim 11, wherein the plurality of semiconductor elements that constitute the communication integrated circuit has the same structure as another semiconductor element formed on the substrate.

13. The display device according to Claim 1, wherein at least a part of the antenna is formed on the substrate in a region excluding the display unit.

14. The display device according to Claim 13, wherein at least a part of the antenna is formed along one peripheral edge of the substrate.

15. The display device according to Claim 1, wherein the conductor formed above the antenna on the substrate to constitute the corresponding display device does not overlap the antenna in plan view.

16. A display device comprising at least one substrate provided with a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,

wherein at least a part of the radio communication device is directly formed on the substrate.

17. An electronic apparatus comprising the display device according Claim 1.

18. An electronic apparatus comprising the display device according to Claim 1 and a charging unit electrically connected to the antenna of the radio communication device through a rectifying unit for controlling the flow of the current in one direction,

wherein the antenna is used as an antenna for charging power into the charging unit from the outside using electromagnetic induction.

19. The electronic apparatus according to Claim 18 comprising another apparatus excluding the display device electrically connected to the charging unit,

wherein the other apparatus is driven by the power charged in the charging unit.

20. An electronic apparatus comprising a first display device and a second display device,

wherein the second display device is the display device according to Claim 1 and is provided on the surface opposite to the surface on which the first display device is provided.

21. The electronic apparatus according to Claim 20, wherein the first display device displays at least one of information written in a radio communication device other than the corresponding display device by the second display device and information read from the radio communication device other than the corresponding display device by the second display device.

22. The electronic apparatus according to Claim 20, wherein the first display device stores and displays at least one of information written in a radio communication device other than the corresponding display device by the second display device and information read from the radio communication device other than the corresponding display device by the second display device.

23. An electronic apparatus comprising the display device according to Claim 1, wherein the display device displays at least one of the information written in a radio communication device other than the corresponding display device and the information read from the radio communication device other than the corresponding display device.

24. An electronic apparatus comprising the display device according to Claim 1, wherein the display device stores and displays at least one of information written in a radio communication device other than the corresponding display device and information read from the radio communication device other than the corresponding display device.

25. The electronic apparatus according to Claim 23, wherein at least a part of one surface and the other surface of the display device is exposed to the outside.

26. The electronic apparatus according to Claim 23, wherein the display device is a display device capable of displaying images on any of the one surface and the other surface of the display device.

27. The electronic apparatus according to Claim 17, wherein the radio communication device other than the corresponding display device reads information concerning the corresponding electronic apparatus from the radio communication device and writes information concerning the corresponding electronic apparatus in the radio communication device as data.

28. The electronic apparatus according to Claim 27, wherein the radio communication device is driven by radio waves input to the antenna from the outside.

29. The electronic apparatus according to Claim 27 comprising a power source unit electrically connected to the radio communication device,
wherein the radio communication device is driven by the power of the power source unit.

30. The electronic apparatus according to Claim 17, wherein the information concerning the corresponding electronic apparatus is rewritten in the radio communication device as data.

31. The electronic apparatus according to Claim 30, wherein the radio communication device comprises a writing unit for writing information concerning the corresponding electronic apparatus as data, and
wherein a rewritable region and a non-rewritable region are provided in the writing unit.

32. An electronic apparatus comprising a display device comprising at least one substrate provided with a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,
wherein at least a part of the antenna is formed on the substrate of the display device and is formed of a conductor formed in the same layer as a conductor that constitutes the display unit or conductors that constitute the display-unit-driving wiring lines, and
wherein information concerning the corresponding electronic apparatus is written in the radio communication device as data.

33. An electronic apparatus comprising a display device comprising at least one substrate provided with a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,
wherein at least a part of the antenna is formed on the substrate of the display device, and is formed of a conductor made of the same material as a conductor that constitutes the display unit or conductors that constitute the display-unit-driving wiring lines, and

wherein information concerning the corresponding electronic apparatus is written in the radio communication device as data.

34. An electronic apparatus comprising a display device comprising at least one substrate provided a display unit and display-unit-driving wiring lines, and a radio communication device having a communication integrated-circuit unit and an antenna,

wherein at least a part of the antenna is formed on the substrate of the display device and is formed of a conductor formed by the same process as a conductor that constitutes the display unit or conductors that constitute the display-unit-driving wiring lines, and

wherein information concerning the corresponding electronic apparatus is written in the radio communication device as data.